# Culture and Sustainability: Lessons from the Oyster and Other Metaphors

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There was once a German archaeologist who deeply impressed the caretaker at Machu Picchu. "Ah," said the caretaker afterward, "he was the one who really understood what I showed him. He paused before each ruin, nodded his head slowly, and said: 'hmm'."

Howard Nostrand (1967, p. 2)

The world is your oyster! proclaims a promotional poster for a study-abroad program, confirming that the oyster-as-world, like all good metaphors, has done some morphing since the days of Shakespeare's Merry Wives of Windsor. Newer bands of shell material have repainted the mollusk metaphor, transforming it from ostracism, opportunism and exploitation to openness, opportunity and exploration, and thus an apt symbol for the intercultural experience. Indeed, Robinson's (1988) definition of *culture* as "a system of symbols and meanings" seems to evoke the very image of the oyster's constant production of shell layers: "past experience influences meaning, which in turn affects future experience, which in turn affects subsequent meaning, and so on" (p. 11). Metaphors are powerful in the economy of their complex bundling of experience. Lakoff (1993) contends that as mappings across conceptual domains metaphors help us grasp abstract concepts [such as culture] in more concrete terms. The metaphor of the oyster as world may thus guide us to look back at how we have mapped culture and perceived our culture-teaching mission in order to look ahead to the construction of new cultural metaphors from the intercultural construct of Sustainable Development.

## I. Food for Thought

Ostreophagists and conchologists

In a 19th-century treatise on *Shell-fish: Their Ways and Works*, the British physician George Johnston (1850) laments two archetypes of oyster enthusiast and, curiously, in his characterizations we can see parallels to ways we have approached the teaching of worlds since the 1960s when psychologists, linguists and educators began to place cultural education at the forefront of language learning. The oyster-loving world, says Dr. Johnston, is made up of *ostreophagists* and *conchologists*. Of these, he says, the largest population is the former, the oyster eater, who

rips the plump body from its connecting fibers and in one quick slurp bolts whole and without question its exotic essence, taking neither note nor notice of the curious intricacies of its organization [or] its wisely contrived network of nerves and blood vessels [...] one soft body swallowing up another without understanding, inquiry or investigation (p. 355).

Indeed, culture, says Vahdany (2005), "has always been touched but not hugged dearly enough" in the language classroom (p. 93). Today's exhortations to close the language-culture gap and integrate culture into language teaching evidence a pedagogical legacy of culture disembedded and disembodied. Fast-food approaches whereby choice pieces of cultural tissue are plucked and processed for presentation have through the years confirmed to students the idea of culture as a quick dessert to language study. It has taken us a while as a profession to accept that culture learning is slow food, messy food.

Since the turn to communicative language teaching called for incorporation of culture as a fifth skill to be highlighted alongside language, we have struggled with how to insert into language the very earth from which language grows; to conform it, compress it and encapsulate it for consumption. Bucklin, writing in 1970 about Anglo and Latin differences, counseled an essentializing approach:

We can make a list of the things that they do and the things that we do. We can then weed out non-essentials, which are in effect the differences the foreigner accepts in a relatively short time. What is left are the traits that make the frustrated North American exclaim 'I never will understand the mentality of these people' (p. 306): Mexicans eat highly spiced foods; families are more extended than ours; time has no meaning; meals are at unusual hours; the Latin takes offense more easily than we do, is intransigent in his politics, doesn't like to cooperate, and spends time in idle conversation when we think he should be working (306-7).

Wrongheaded as inventories of stereotypes seem at first blush, we might consider the extent to which American jumping stones still pass for culture teaching, with the words more and less accentuating contrastive cautions. As Crawford and McLaren (2003) put it, "we ogle the peculiarities of cultures different from our own and subsume their equivalencies" (p. 146).

As the early years of culture pedagogy saw us focused on the what of culture as a body of knowledge, serious efforts were devoted to the conception of frameworks and models that could guide selection of points essential to teach from the immense sociocultural whole. The major undertaking was seen as that of building the values/ assumptions/behavior construct of the culture itself, as Nostrand (1967a) states: "the laborious task is describing the regularities in each culture; once that is done [...] the further step of developing broadmindedness becomes a manageable and exciting prospect of cross-cultural conversation" (p. 14).

Hearkening the works of Hall (1976), Singer (1975) and Whorf (2012), Humphrey (2002) notes a long history of the cultural criticality approach that places emphasis on studying vital differences in cultural behaviors and assumptions as potential sources of communication breakdown in cross-cultural contexts. Beginning with Kluckhohn and Strodtbeck's Values Orientation Theory (1961), which identified five common human concerns from which cultural values emerge, researchers across disciplines from psychology to management (e.g. Hofstede et al., 2010; Schwartz, 1994; Ting-Toomey, 2009; Triandis, 1995; Trompenaars & Hampden-Turner, 1998) have sought usable theoretical constructs of cultural values variability, propagating the popularity of such nomenclature as the *individualism-collectivism* continuum. Such values dimensions have served as putative cross-cultural vantage points for attributing differences in behaviors to different sets of assumptions below the level of consciousness, often recognizing that we are not polar opposites, one from the other; rather, there is some of the other in each of us (Trompenaars & Hampden-Turner, 1998).

Alas, in the haste to find an "absolute cultural grammar" (Shaules, 2007, p. 49), practitioners have often been romanced by the frameworks and constructs as cultural *traits* themselves, for there is a second type of ostraphile, according to Dr. Johnston: That is the *conchologist*, the shell collector, who seeks differences from which he can deduce geographies, assign species to categories, and mount his specimens for permanent display. The conchologist

rejects without inspection or deglutition the soft and tempting substance, and contents himself with the hard and unprofitable shell, without heeding whether it ever enclosed a living body. His is an oyster bed of choice unchipped specimens, all shells and no insides! (p. 355).

Whereas the conchologist sorts samples according to form and origin, the cultural taxonomist characterizes, classifies (and assesses the consequences of) difference as a sort of pre-existing and stable condition of demarcated political territories housing homogenous populations. Sidestepping internal organs, he superimposes on the world map a master template of dubious dichotomies, e.g. indulgence cultures vs. self-restraint cultures; masculine cultures vs. feminine cultures, passive cultures vs. active cultures, expediently scaling and gridding cultural mindsets to tuck them neatly and safely behind national borders where they are petrified into what Bhabha calls a sort of *muse imaginaire* of Western connoisseurship (Rutherford, 1990).

While some of the more questionable of these values catalogs have thankfully not settled into language classrooms, having been designed with a more utilitarian culture-for-specific-purposes aim, the heartiest and most accepted of the values dimensions, such as the individualism-collectivism continuum, do speak with authoritative voice in academic contexts where, unfortunately, their use may sometimes be warped to lazy caricature, as evidenced by the following from a widely used college text on *Intercultural Communication* (Pajewski & Enriquez, as cited in Neuliep, 2012):

Hispanics seem collectivistic across a variety of contexts, including academics [...] In school settings, Hispanic students tend to be cooperative, whereas White students tend to be competitive and individualistic. When Hispanic students work in groups, not everyone is expected to do his or her equal share. A group member who does not work is not sanctioned, while in the Anglo group, each is expected to do his or her share (p. 101).

Aside from the problematic of contrasting fabricated and imposed groupings as *cultures* (Anglos and Hispanics), we may ask what is to be taken from a generalization in which *collectivist* is given to mean *cooperative*, which is in turn given to mean the *absence of competitiveness*, presumably resulting in a low expectation that each will do his or her *equal* share. Thus, our collective unconscious where lie our judg-

ments and stereotyped images concludes that, absent competitiveness as a motor of responsible productivity, Hispanics must be shirkers. Compounding the profile is the racialization of the contrast (Hispanics vs. Whites), and thus the implication that pulling one's weight is an attribute of skin color. Holliday et al. (2010) warn of the risk of reification in use of such heuristic devices, "temporary models created as rough, unreal measures against which to look at a messy, real set of phenomena," provoking the question: "how powerful is the idea of collectivism and how far does it carry chauvinism? (p. 41-42).

Critics of the cultural taxonomist question not only methodologies of data collection from which constructs are derived (McSweeney, 2002), but the broad etic-emic question addressed by Pike in 1954: Is our knowledge objective or subjective? Lu (1998) argues that the constructs themselves are culture-bound products of Western-defined meanings; Miike (2003) judges them a "commitment to intercultural communication scholarship in Eurocentrism" (245). Taxonomists' tools, constructed to fit and be operated by their own hands, are themselves biased, leading to what Rimmington and Alagic (2008) refer to as cultural agnosia, the lack of cultural acuity that results when the designers' own cultural background affects their conceptualization of a dimension (p. 12). As such, linguistic, cultural and academic biases distort the complex fabric of a culture under study, extricating not necessarily what a target group deems as an essential value in its own culture, but rather the forced-fit attributions of the outsider who has chosen what big values (for the labels themselves are power-charged) to find missing in the Other. Above all, critics cite the absence of person in the static categorization of peoples that dispatches the inhomogeneity of nations to provide us the comfort of "secure meanings in a bedrock of our own prejudices" (Crawford & McLaren, 2003, p. 131).

Indeed, the utility of any values dimension framework in learning about other cultures lies more in what it reveals about ourselves and what we select to observe in another; about the assumptions and expectations assumed to characterize us as a people and the extent to which these are shared among members of our cultural group; and about the presence of equally valid options in the way humans perceive the world. Certainly one lesson to take from the conchologist would be the invitation that students critique their own utterances for detection of quantified comparisons; hypergeneralization from limited or idiosyncratic contexts; universalization (assuming a shared perspective); and emotionally charged colorations (poor but happy, so nice, corrupt government).

Crawford and McLaren (2003) stress that culture "is not some grand hotel reflective of a grand design and central authority" and "signs are not anchored the way they are in museums" (p. 131). Rather, an important difficulty in understanding the process of intercultural learning is that every situation is different and individuals differ widely in their responses to apparently similar situations. As Tompenaars and Hampden Turner (1998) point out, we are never purely individualists or purely collectivists. Missing from both the ostreophagist and conchologist mindsets is the idea of culture as a complex, dynamic, creative process that adapts to real-world material, political, and social contingencies; a historical process of making life meaningful; and a moment-to-moment process of refining understanding through interaction between individuals.

#### The (Inter)cultured Pearl

In the oyster community, Dr. Johnson tells us, all individuals are attached to the substrate and one another, yet each presents some particularity of contour or ornament; each individual's shell is layered with the accumulated experience of all the situations it has lived:

Its whole soul is concentrated in itself, yet open to, dependent on the vast sea [...] Perhaps sometime a random particle, a grain of sand intrudes on its peace of mind and ease of body and it coats the foreign irritant to fashion from annoyance a new and sparkling treasure (p. 355-6).

Indeed, we might liken the production of a pearl to the hybridization of ourselves as *inter*cultural beings; rather than rejecting, neutralizing or converting the *foreign*, allowing it to live within our consciousness as an equally valid and important way of seeing. Bhawuk et al. (2008) distinguish between accepting the existence of cultural difference and allowing that difference to impact one's life. Crozet (2007) claims that the essence of *inter*cultural learning is not the acquisition of knowledge but the transformative process of becoming a *different person*: a turning inward of cultural information through self-reflection, an enhanced sense of the role of culture/language in the construct of worldviews (one's own and others) and a conscious positioning of self when confronting difference (p. 6).

The notion of intercultural competence, as variously defined (Bennett, 1993; Byram, 1997; Deardorff, 2006) shifts the focus from culture as a stable identity or body of knowledge to a process of internal evolution and mediation, self-awareness and critical analysis, the ability to see relationships between cultures, and the growing of attitudes, skills and knowledge to interact successfully in intercultural contexts. Indeed, if we adopt the oyster as our world, its hinged shells might serve as a metaphor for the in-between meeting space of intercultural industry, the open yet protected space for intake, exchange, growth, and transformation. Robinson (1988) takes a synthetic perspective on this space, calling it the *color purple*: a productive, cognitive, perceptual and affective space of cross-cultural contact created by awareness of one's own cultural lens (e.g. blue), the recognition that a person from another culture has a different lens (e.g. red) and that, while unable to escape our cultural lenses, we can choose to overlap lenses (e.g. purple) to understand better the other's perspectives and arrive at shared meaning.

Rather than the broad strokes of cultural capture, perhaps the framework we now seek is something that can guide us into each other's complexity as well as our own while building transferrable intercultural skills, knowledge and receptivities. Watkins (2005) notes that it is only through our capacity to imagine the other as autonomous from ourselves and the way we need to see him or her that we can hear our own assumptions and recognize how accidental it is that we hold the views we do. Indeed, such a mindfulness shifts our approach to culture from expedient consumption of knowns to the exciting and unrushed investment in unknowns and from monologue to dialogue in which learners become seekers and sharers. Rimmington and Alagic (2008) describe this process as *selfing the other and othering the self*: I elicit your perspective; I summarize your perspective and share mine; I project myself

from your perspective and I elicit your reflection from my perspective. What is being advocated by many models of intercultural learning is the focus on connected, durable and transferable skills in learning how to learn about cultural others. Kolb's (1984) experiential learning cycle depicts this as a four-stage process consisting of concrete experience, reflective observation, integration with abstract conceptualization, and active experimentation, building on knowledge with problem-solving to adapt more effectively to same or similar events.

# The Philosophy of the Oyster

There is a philosophy in the oyster, says Dr. Johnston: "portions of its frame [...] so constant in their presence and position [...] antitypes and anticipations of undeveloped senses [...] the first draughts of parts to be made out in their details elsewhere [...] each individual displaying self-similarity and recursiveness in part to whole as well as badges of relationship and affinity between self and others" (p. 355). Indeed, like much of the natural world, the oyster is made of fractals; its internal logic resists traditional geometries in which patterns appear simpler as we zoom in. On the contrary, fractals reveal their complexity only when magnified (Peitgen & Richter, 1986).

Lang (1997) sees culture also as a fractal phenomenon, contingent on perspective and scale. Not to be captured by squares or circles or components counted on fingertips, magnification reveals "bumps upon bumps" (pp. 97-98): "Once blown up, any thread or filigree dissolves or, better, resolves into another infinitely layered realm of self-similar images" (pp. 98-99). Likewise, Seagh (2005) contends that culture is an abstraction from all the cultural imprints of the individuals that comprise the cultural formation: While we all have a socially acquired imprint in our mental apparatus, each person's cultural identity or memotype is individually constructed, unique to its formative experiences, but will also display similarity on the largest scales of nation, ethnicity, and religion/ideology. When individuals interact, their cultural imprints are brought into semantic alignment, constituting a sort of microculture, and these microcultures overlap, sometimes in conflict. We are as in Gleick's (1987) description of a fractal, that miracle of miniaturization in which every detail will be a universe of its own.

As a sort of broad mindset, the idea of fractality may be useful to us in the design of curricula, in the development of cultural lenses, in the structuring and destructuring of learning tasks and in the focus on pattern and particularity. Deardorff (2009) contends that what is required is a holistic approach to intercultural education that goes beyond the conventional surface to a deeper understanding of the historical, political and social contexts and the construction of differences in shared historical processes. Simultaneously, however, we must zoom in to ethnographies of the particular (Abu Lughod, 2009) to appreciate not only the complexity and diversity of cultural variations, but cultural identity as a matter of *individual* imagination and enactment.

Fractality tells us that culture cannot be contained or packaged or perceived as direct relationships between products or practices and perspectives. Moreover, it counters the idea of fixing the parameters of our classroom cultural material at all, as every situation, every event, every act, every conversation, every word is a culture entree that loops and coils and projects onto others to provide a transformative journey that is pretty much eternal. The notion that one's access to fractal *content* is governed by one's orientation tells us that we need different vantage points, voices, settings and temporal lenses. Indeed, everything around us, virtual and material, affords a new text to be interpreted for its relationship to other texts and to all texts. Exploring complexity and connection requires as well the wide-open plain of big issues and intractable questions that engage the diverse voices of a culture interacting with itself and with others. For Crawford and McLaren (2003) this means problemetizing cultural themes through provocative questions that motivate critical engagement in values of a culture to reveal cultural contradictions that reflect "not only the lived experience of the present humans responsible for the making of their own cultural world, but those groups whose voices have been marginalized or silenced" (p. 139).

## The Sustainable Oyster

As ecosystem engineers, oysters are a model of sustainability, resilient and adaptive survivors of the harsh, stressful and changeable sea environments (Sjøgren). Until recently, the mysteries of their vitality and self-healing properties have been explained solely by one scientific model: a strange, out-of-cellular-body process in which synthesis of ingredients for shell formation occurs outside cell walls and runs autonomously without any direct control from the oyster itself (Stephenson, 2014). New research, however, is refuting this model: Scientists have discovered deep within the oyster "busy intracellular factories where the 'bricks' of shell construction" are being made and where "cells appear to be crawling out of the oyster's body and transporting crystals wherever they were needed" (Stephenson, 2004, pp. 33-35). The process of production and repair is not coming from the outside after all, but from within.

A similar within-or-without debate is that of the impact of globalization on cultures, often viewed as the advancing flood of the Western world washing away distinctions and making culture obsolete and irrelevant. Indeed, the culture clash of globalization creates two contrasting illusions: One is that our way of life is under siege from outside. The other is that culture and cultural values are no longer relevant in a post-modern world, says Shaules (2007): The former is founded on a deep fear of cultural difference; the latter results from a naive blindness. In contrast to the uniform exterior of cell phones and Starbucks, Medina-Lopez-Portilla and Sinnigen (2009) remind us of the tensile strength and dynamism of cultural identities that, rather than museum pieces stagnant and frozen in time, evolve and hybridize with intercultural contact (Shaules, 2007, p. 249).

Indeed, argues Hymes (1975), "Intact tradition is not so much a matter of preservation as it is a matter of recreation, by successive persons and generations and in individual performances" (pp. 354-55). St. Claire (2007) employs a sedimentation metaphor to illustrate this process: The constant flood of images, artifacts and events on the cultural space of the landscape leaves behind a new layer of sediment, some of which washes off and some of which is integrated in a re-presentation of the past (the old present) from the perspective of the new present, containing meanings of both the past and present. "As unbounded, mutable, and emergent as life itself," Magoulick says, "cultural expressions are to be discovered, created, and re-created by each generation, even while that generation, in coming to life, will come with awareness of and connection to the past." (p. 1)

Tomlinson (1999) contends, in fact, that the phenomenon of globalization itself cannot be properly understood until grasped through the conceptual vocabulary of culture. Rather than homogenizing, technology and the mediatization of neoliberal globalization have triggered the self-mending responses of marginalized (particularly indigenous) communities to wound and threat of wound, with the result that "globalization has accentuated tribalization. People are simultaneously coming together and pulling apart" as ethnic, religious or linguistic affiliations and affinities get played up (Kumaravadivelu, 2012, pp. 11-12). While intensified values conflicts as well as their competing and contesting metaphors of individual, society, nature, time and space, pit an indigenous imaginary against a hegemonic discourse of the imaginary indigenous, willful acts of cultural repair and remaking bring the periphery to the plaza to create new cultural space as those excluded from the power play employ globalization's tools to extend their reach physically and psychologically across previous boundaries, absorbing vitalizing substance from without for nourishing production from within.

For Kumaravadivelu (2008), understanding cultural sustainability means that "interlocking structures of power, class, race, spirituality, environment and so forth must be explicitly discussed as content" in the classroom (p. 158). For O'Sullivan (2002), it requires a shift of consciousness that dramatically and permanently alters our way of being in the world: an understanding of ourselves and our self-locations; of our relationships with other humans and with the natural world; of relations of power in interlocking structures of class, race, and gender and alternative approaches to living; and a sense of possibilities for social justice and peace and personal joy.

# The World as Oyster

In this section we have mined the oyster-as-world metaphor to examine perceptions of culture and its teaching-learning enterprise: from an entitative existence abstracted from all circumstances or relations; to a complex dynamic process of co-dependent interaction; to a symbiotic, self-renewing and individuating system that intertwines with infinite others in the vast planetary sea. As products of cultures, metaphors filter our perceptions and guide our learning and action, giving us a conceptual handle on complexity. But whereas they provide the imagination with keystones, metaphors can capture only a partial image of complex realities (Metaphor Project 2006). Moreover, as self-fulfilling prophecies for how we ascribe the functioning of reality and formulate our visions and goals, metaphors can be inhibitors as well as enablers, say Barter and Russell (2013), who provide the example of the common medical metaphor "blight" applied to depressed urban areas to justify excision through radical surgery rather than seeking to enhance the life of the community. Likewise, the "marketplace of ideas" metaphor infuses innovation with profit-seeking competition rather than a sharing of revelations; our desire to "get back to nature" reflects man not as part of but as apart from the natural world--a "place" reserved for visitation--whereby, once distanced, nature becomes an adversary to tame or harness, the holder of "resources" to capture as efficiently as possible because, after all, time is money.

We might ask how compatible are our metaphors with those of other cultures. How adequate for the global challenges of sustainable development are our abundant metaphors that mechanize, "monetise, militarize, and materialize" the world? (Goulah, 2008, p. 145). There are, in contrast, metaphors that speak to other ways of viewing the world in which environmental sustainability, for example, is less a matter of conservation of nature and more a matter of conversing with nature: The Quechua metaphor of the ayllu as both nature and society, a merged present-past-future space kept in balance by a community of reciprocity where no organism--plant, animal or mineral--is superior to another; the Maya metaphor of the milpa, a system of sustainable agriculture and a view of the world that binds together family, community and cosmos.

O'Sullivan (2012) envisions education for the 21st century as one that expands our horizon of consciousness as earthlings sharing a planet, a cosmological context that is "much more breathtaking than the market vision of our world" (p. 7). Moreover, Barter & Russell (2013) argue that critiquing our dominant metaphors for their compatibility with ideas of interdependence that are the backbone of sustainable development is the first step in designing metaphors that reflect new vistas of human possibilities. Needed, say the authors of the Metaphor Project (2006), are individual self-reflective metaphors that creatively redesign cognitive environments so that new opportunities become apparent, yet leave free space for the imagination to explore.

The following section highlights some principles of educating for sustainable development, how they might contribute to our mission as teachers of languages and cultures, and how we might catalyze learning experiences that develop intercultural sensitivities and a sense of O'Sullivan's (1999) planetary interdependence. Along the way, we will hear students construct personal intercultural metaphors that reflect mind-opening moments in the context of overseas immersion in the oysterbed of Mexico City.

## II. Sustainable Development: I-sight and Depth Perception

Man must now embark on the difficult journey beyond culture, because the greatest separation feat of all is when one manages to gradually free oneself from the grip of unconscious culture. ~Edward T. Hall (1976, pp. 139-240)

In 1967 Nostrand spoke of the transforming potential of a curriculum that would open ethnocentric minds, humble the superiority complex and build self reliance, responsibility, reflection and personal meaning. He called for language programs to be "horizontally coordinated" with learning across disciplines, and directed toward the development of "deep cultural knowledge" through immersive experiences, especially study abroad. Forty years later, his words echo in the Modern Language Association's (2007) call for a structural and ideological transformation. Centralizing the role of overseas study and resituating the campus classroom as the place for structured learning that first sets the stage and later reinforces learning absorbed in study abroad, the MLA urges holistic approaches that are intellectually driven and interdisciplinary; structured to produce informed and capable interlocutors; situated in cultural, historical, geographic and cross-cultural frames; and attentive to reflection on stereotypes, competing traditions, background realities and the specific metaphors that inform culture.

Language learner demographics support such a paradigm shift: Today's students are not en route to literary scholars--only 6.1% of language majors pursue doctoral degrees (National Science Foundation as cited in MLA, 2007)—and their interest lies less in language as a career and more in language in a career—only 7.2% of overseas sojourners are FL majors (Allen, 2010). We are being asked to "imagine a new generation of highly skilled, multilingual Americans" (Chow) who are our future engineers, social scientists, business leaders, political activists, city planners, computer programmers, and healthcare workers. As language departments heed these invitations to become a vital part of their institutions' professional formation of all students, they find themselves participants in broader educational missions and agendas, engaged in new dialogues from which new sets of priorities emerge in preparing future citizens for the realities of international teamwork. Calls for content-based approaches that prepare learners to engage interculturally as active professionals in overseas contexts reflect the realities of our future engineer consulting on an innovative water distribution system in rural Peru; our future doctor assisting in the prenatal education of women in a Bolivian village; our future executive facing a land dispute that impedes his company's construction project in Mexico; or our social worker coordinating with an NGO in Guatemala for the improvement of rural education. Rather than export U.S. textbook solutions to such plausible scenarios, our future professionals will need to learn how to learn from and about cultural others, hear and accept the knowledge of others, communicate without presumption or arrogance, adapt to different needs, resources, traditions and beliefs, and adopt more expansive, inclusive, metaphors of "development."

In its 1997 report, Educating for a Sustainable Future, the UNESCO cited sustainable development as the key issue of the 21st century and called for reshaping education to eschew the supremacy of hegemonial and ethnocentric approaches and promote understanding of development in its four interdependent dimensions: environmental, economic, social and cultural, typically illustrated by the interlocking circles of a Venn diagram, in which the center overlap is human well-being. Many institutions now proclaim sustainable development as a primary educational mission; yet its interpretation has tended toward the green and the greening (economic and environmental) in neglect of the more "invisible" human pillars of society and culture.

The last decade, however, has witnessed heightened discussion of the fourth lens of cultural sustainability, commonly viewed as the protection and enhancement of identities, tangible and intangible heritages, communities of beliefs and languages and cherished spaces and enduring relationships, including a culture's perceived relationship with the natural world. While acknowledging that in an era of homogenizing pressures, local histories, traditions, forms of linguistic, artistic and spiritual expression are among our most endangered resources and precious asset, UNESCO (2003) goes a step further, citing biological, cultural and human diversity not as an unchanging deposit in need of preserving, but as a "setting for continuous, unifying dialogue between all expressions of identity" (p. 7). The UNESCO has been emphatic in is declaration that sustainable development itself is a localized and contextualized concept in which "culture" is not just a dimension, but a new anchor and entry point for approaching the interrelationship of all dimensions: social, cultural, economic and environmental. Urging more involvement from the humanities and social sci-

ences in educating for sustainability, their report urges a flexible intercultural approach to educating for a sustainability ethic that explores the interdependence of all dimensions through multiple vantage points with a wide range of stakeholders; that is locally grounded but globally connected to expose diverse ways of thinking, valuing and acting; that is rooted in cultural specificity and the unique challenges of culture-specific realities, histories and political structures, including those of the marginalized. In other words, educating for sustainability is not simply casting an eye toward cultural patrimony when making economic decisions; rather, culture is the eye itself, the lens through which all dimensions of development must be seen. This cultural eye is what we aim to nurture in the language-learning enterprise.

Adopting a sustainability mindfulness for language and culture learning means, among other things, having a lens to give sight and vision, to zoom in and capture the angles to critically examine and engage in complex issues, events and dilemmas in terms of human meanings, connections and consequences. As a place-based and problem-based framework, sustainability is grassroots and of global impact, uniting past and present in future-oriented discussion. As an interdisciplinary concept, it relies on the knowledge and perspectives of many different fields at the same time that it begs de-territorialized thinking, a constant connection and massaging of learning, a longitudinal approach, and the engagement of students in the complexity of real-world relationships to incite passion and voice. The guiding principles of ESD (Educating for Sustainable Development) are, in fact, those that also guide our efforts toward intercultural communication (ICC):

- Interconnectedness and Impact. As holistic concepts, ESD and ICC insert learners into the real-life tangle of unanswerables to promote nonlinear "systems thinking." In contrast to "event-oriented thinking" that observes a problem, attributes a cause and delivers a fix, Senge (2006) sees systems thinking as "thinking inside the box," recognizing that a change to any part or connection affects an entire system (p. 74-75).
- Interaction and Inclusiveness. "Where different ways of looking at the world meet, dissonance is created and learning is likely to take place" (Wals & Jickling, 2002, p. 230). At the heart of sustainable development are human stakeholders as decision-makers and stewards, humans as individuals of infinite diversity, humans in cultures with different systems of meaning, humans with generational investment in traditions and historical memories and ways of enduring in the world. Sustainability as an interactive framework opens the mind to conceptual connections formerly unseen; inserts us into contexts for which we have no scripts, to connect to people with whom we may not have considered connecting and integrates diverse narratives for understanding global issues in a local context and local issues in a global context. Sustainability encompasses all human beings, not just some people some of the time (Barter & Russell, 2013, p. 147), bringing to the fore issues of power relations, equity, justice, aspiration, responsibility and fostering attitudinal values of curiosity, tolerance of ambiguity and withholding of judgment.
- Introspection, Investigation, Investment. ESD is a mind-opening reflective process of developing an understanding of ourselves and our self-location, of seeing

alternatives and possibilities, of constructing durable habits of critical inquiry, the skills of information literacy in research, and an acceptance that our knowledge is always incomplete.

- Inversion. The ESD classroom, like the ICC classroom, resituates the traditional teacher-learner structure: Students are viewed as repositories of knowledge and speak as experts; teachers view themselves as both catalysts and learners (Wals & Jickling, 2002). Likewise, the ESD-ICC classroom reverses our image of languageculture teaching: rather than integrating culture into language, allowing language to emerge organically from cultural content, contexts and communicative needs.
- Inseparability of language and culture. Understanding sustainability as a culturespecific concept means accessing its voices through the language that codifies perspective. It is only through the language that we can excavate a culture's powerful metaphors or access the subtleties in sparring discourses. Indeed, perhaps nowhere are we more deceived by translation than in the seemingly neutral language of sustainability itself. The language of sustainability contains some powerful words, not just for the explicit sense we think they have, but for their implicit association and cultural charge. What is meant by developed and developing? What do we imply about ourselves and about others by our use of these words? Why are complex phenomena so often explained away by the word poverty and what assumptions does this word secretly index for us? In the U.S. we may proudly proclaim our value of individualism, but does this word evoke the same positive sense in another culture? And if it does not, does that mean respect for the individual is absent? Is history just a textbook subject or is it our subjectivity itself? Likewise, does tradition imply old-fashioned, primitive, in need of modernization? What is modern? Can we be modern and eschew Western technology? Is that progress? As O'Sullivan (2012) states: "creative visionary education must include a conception of development that will transcend the limitations of our western ideas" (170).

Thus, sustainability as used here has a fourfold reference: 1) sustainable development as interdisciplinary content--that is, an issues-based approach and set of lenses to direct the situated cultural eye to the connection of economy, environment, society and culture; 2) sustainable development as intercultural process, aimed at the emergence of self awareness, emancipatory skills of critical and creative thought and reflective habits to build learner autonomy in learning how to learn about other cultures; 3) sustainable development of communicative skills and strategies sensitive to diverse stakeholders, the contexts of discourses and the semantic traps of words; and 4) sustainable development as ethic and attitude; a sense of connection, consequence and responsibility and an awareness of the potential impacts of decisions, especially as they relate to powerless groups.

The examples here are drawn from a faculty-led study abroad immersion program in Mexico City, termed an OVER-SCEES program by Kelly Comfort (personal communication, June 5, 2014) for its focus on turning the cultural eye toward the four interdependent dimensions: Social, Cultural, Environmental and Economic Sustainability. The intensive seven-week program is conducted entirely in Spanish and enrolls students of intermediate-level proficiency (low to high) in all academic

disciplines (but primarily STEM fields) with the aim of stretching language skills and intercultural competence toward professional-oriented contexts. The curriculum is content-based and interdisciplinary, using only authentic texts (oral, written and visual) and has both predictable and unpredictable elements, consisting, in part, of a fixed content designed to foster a sense of Mexico's historical development and, in part, a set of integrated experiential and fieldwork components designed to connect what Kumaravadivelu (2008) identifies as the four realities of cultural life: the global, mediatized and technological reality, the national or institutional reality, the social reality and the personal reality of individuals. Extra-classroom components include homestay, fieldwork tasks, professional site visits (e.g. businesses, government, NGOs and social enterprises), service learning, and a final case-study project. Although constant language feedback is provided, there is no syllabus of grammar topics or vocabulary lists; rather, the language is the medium for learning content and context is the resource for stretching language (Stoller, 2002) through the rigors of the content, through communicative needs expressed by students, and through the discourse demands of a variety of intercultural tasks (e.g. surveying and reporting, interviewing, contacting businesses and professionals via phone and email, presenting site visit reports, conducting ethnographies and case studies, developing advertising or public service announcements, formulating cogent argument in debates).

It has been said that the development of civilizations is essentially a progression of metaphors (Metaphor Project, 2006) and, indeed, the fixed-content component of the program as described in Galloway (2006) traces Mexico's development to the present challenges of sustainability by excavating the monster metaphors, such as maíz (maize), that fractal their way through Mexican economy, politics, law, commerce, spirituality, community identity and family, in continual re-appropriation and re-signification from pre-Columbian narratives to corporate advertising and international trade agreements. Mexico's story is an unending construction of new discourses of power from the palimpsestic words, objects and images whose agglutinated meanings hold the minds and hearts of its peoples. While course content provides the chronology of Mexico's story, it is one that constantly loops and coils, cycling back and forth to give pastness to present.

A substantial part of the program's content, however, is non-fixed, driven in directions generated by student experiences or insights, ethnographic and fieldwork tasks, and project selection and investigation areas, as well as current events and issues reflected in local news, dialogue and debate. All students, for example, dedicate one day per week to a tequio, or service learning project, with a local NGO, social enterprise or community outreach program. The tequio itself, an ancient aztec custom of required community service that is as much a part of Mexican society today, gives glimpse of a value system that weights the collective as part of the individual. It is generally these field experiences that significantly shape the final case-study project, in which students work in committees (assisted frequently by their Mexican university peers) to identify a concrete issue or situation related to Mexico's sustainable development, for example, from water access, education, unemployment, land use, health care, energy, to indigenous artisanry or the national film industry. Case study tasks consist of identifying a problem via a news article or other local source (an important

step that situates and frames the problem from a local perspective rather than as outsider imposition); conducting background research in the language to expand their knowledge of the problem's roots and history of proposed solutions; conducting an impact assessment by analyzing the problem from all four sustainability perspectives; identifying at least three local professionals or experts positioned to offer diverse perspectives on causes and solutions (e.g. a vendor or shopkeeper, a businessperson, a lawyer, a government official, a social activist, an artist), and requesting and scheduling chat time with these individuals, using appropriate phone and email protocols. Students then conduct 30-minute videotaped chats with their professional sources and select segments of these interviews to caption (in Spanish) and integrate with their research for an oral committee report and written executive summary.

Indeed, with sustainability as an intercultural mindfulness, everything becomes a case study, in which the teacher's role is to help connect, rather than direct, via a set of learning lenses that trigger critical thought and reflection. Begging once more the indulgence of our now-exhausted bivalve, the way the lenses of the cultural eye fit together evokes the image of an oyster shell: banded horizontally with overlapping arcs of awareness, through which run vertical striations of bidirectional dialogue to connect learning. Not to be confused with stages of learning or instruction, each band or layer is a transparent lens applied simultaneously with its under-layers, as activity feeds into and flows from one without obscuring the others.

- 1. We may envision the first lens as the I-focused eye: impressions and observations initially understood only in terms of one's own cultural template. While questioning one's eye is the first learning layer, it underlies and is activated in all subsequent layers.
- 2. The second layer is that of cross-cultural meta-awareness, exploring the general notions of "culture" (e.g. the existence of different realities, the use of symbolic systems) and the phenomena of culture-culture contact, and learning how to see not in terms of fixed meanings but as a matter of possibilities and plausibilities.
- 3. The third layer is a culture-general or etic lens and employs the cognitive framework of cultural commonalities to approach the exploration of differences in our cultural unconscious via the most basic set of questions human cultures share: a) what is self in relation to others; b) what is society and self in society; c) how do we perceive and interact with the natural world; d) how do we sense time, its rhythm and continuation; and e) how do we perceive space, physical and psychological. Beginning with these universals helps to convey the idea that similarity, far from a surface phenomenon, is to be found deep in the human condition and the need of cultural groups to structure their realities; what makes values different is how groups prefer to respond to these needs in the construction of cultural realities from different imaginaries. Robinson-Stuart & Nocon (1996) suggest guiding learners to focus on a temporary framework of universals as an initial point of departure so that the tendency to exaggerate and generalize difference can be undermined with positive affective and perceptual results (436).

- 4. A fourth lens is the *emic* exploration of inner industry, a fleshing out of how certain values preferences and orientations become perceptible in the routine behaviors of groups in situations. It is with this lens that we meet "the stakeholders" to access the simultaneous existence of multiple, indeed conflicting, values and assumptions.
- 5. The fifth lens is that of the interlocking dimensions of sustainable development, which serve as a template for deep exploration of issues, problems or dilemmas from an insider, multi-voiced, values-systems perspective. It is through this lens that problems reveal multi-causality, tangled historical roots and the complexity of resolution.
- 6. The sixth lens is that of the sustainability ethic, as issues are taken into the global arena where clashes of values will be amplified in the grand dramas of power-players and space-makers. It is through this lens that we examine and debate the human impacts and consequences of policies, decisions and actions at local, national and international levels to foster a sense of what O'Sullivan (1999) calls "planetary consciousness."

Like other big ideas, such as language proficiency or intercultural communication, educating for sustainable development is a wishful concept. There is no 'aah, I have arrived' point at which we can claim 'I've done it, I need do no more.' Rather, it is all about the aha! moments, the flashes of insight that, if left unexpressed and unconnected to learning, may fade from learners' minds. Perhaps these instances of personal revelation, if we knew about them, might be more valuable to our mission as teachers of language and culture than all the frameworks and models our research has devised. As Moeller and Nugent (2014) state: "The possibility of self-awareness and identity transformation will only exist once students are given the opportunity to recognize where they begin the journey." (4) In the effort to capture these aha moments and, indeed, even trigger them, one of the learning tasks during the program is the individual development of an intercultural metaphor that derives from a moment of personal insight or connection. Some of these student metaphors have been integrated into the following discussion, in which a thematic thread of the Mexican marketplace is used to illustrate how the various lenses can give depth perception to the cultural eye in learning for sustainability. Student metaphors occupy the entire range of types identified by Denroche (2014); for example, attitude or emotion shift, explanation, reconceptualization, analogy and learning connection. All metaphors are presented orally to the class in their chosen format; thus, no attempt is made here to recreate them in their original Spanish.

### Sight-seeing

Thinking for sustainability jars our complacency by making us examine our own conceptual baggage to recognize that sometimes our know-how just doesn't know how. So too, developing the intercultural eye necessarily shocks conditioned ways of seeing that limit the types of information we are able to perceive and process. Opening the mind to other associative possibilities invites conflict essential to understanding.

Students' first task in Mexico City is to take photos as they walk to their hostfamilies' homes. One of these, purloined for discussion in the classroom, shows a tranquil plaza of the type found along the tree-lined avenues of Mexico City's Colonia Roma neighborhood. Centered in the far background of the photo is a statued fountain surrounded by benches on which several children are playing. In the foreground of this photo is the avenue itself, strewn with scattered items of litter, including an unfolded newspaper. The photo was shown to the class for open discussion.

Predictably, the first thing students saw was "trash". How do we see this trash? Trash can mean a bad neighborhood, students said. Poverty. Trash is lawlessness, disrespect, laziness. Messy people have no pride. Claiming her photo, the student explained why she selected to see and capture this scene, for the trash had indeed been her focal point. It had caught her eye because it marred the view and confirmed her stereotype: 'I was worried about what I'd gotten myself into and I saw something that fit my fear about Mexico and where I'd be living.

This photo, seen another way as the suburban eye settling in lived urban streets already portrayed by U.S. media, became a visual metaphor of sorts for the distortion of confirmation bias, the tendency to draw out and interpret information in a way that confirms held beliefs. Indeed, unbeknownst to us, overseas sojourners are giving sense in one way or another to everything they see and hear at every moment in their new environment. Yet Wright (2000) notes the absence of studies that investigate patterns in students' initial perceptions about another culture, in what is selected for mental photograph, lingered processing and ultimate assembly into personal and unique C2 montages. Allen et al. (2006) contend that deep cultural understanding cannot be guaranteed if students are limited to their own devices and perspectives when attempting to comprehend their new context. Because so many things go unvoiced, hanging like shadows in the back of minds, the most dangerous place for student sojourners is the hiding space of silence; what is needed, rather, are risk-free, nonjudgmental spaces for the complex dialog of the moment, for wondering, hypothesizing, reframing and re-synthesizing perspectives, airing confusions and frustrations, at the same time that learners are becoming comfortable with the idea that their cultural template is framing them.

As Porto (2003) observed of learners stuck in their own way of seeing: they "approached otherness from a generally ethnocentric position, overlooked incongruencies with their own cultural codes, failed to recognize the importance of a larger context for cultural practices, assumed that many aspects of the other culture or subculture were similar to their own, and assimilated the unknown to the known" (p. 358). Guest (2002) cites a tendency to over-attribute culture as cause: "When we interact with people from our own culture, we tend not to culturize them, but to ascribe personalities to them. Why then, do we interpret the behavior of a foreigner as if it is entirely a product of culture?" (p. 157).

All good metaphors are multilayered, and our "trash photo" would have much more to offer than a lesson in I-sight. Much like our always incomplete observations and cultural knowledge, photos are boundaried and cannot entirely situate themselves in their context. Indeed, the importance of *context* was an early lesson learned painfully well, as recounted in the following personal metaphor.

## Aaron's Metaphor: The No of Yes

Aaron's story opens as a question to the class: How do we know we have communicated what we think we have? He had met a girl through friends of his host family's neighbors and, walking her home, invited her to see a movie the next night. She said "yes". The next night he went to her home, but no one was there. Later, with nothing to do, he went to his host's neighbor's home. And there was the girl, hanging out with her friends. Embarrassed, he left immediately before she saw him. Why had she said yes but meant no? The first reaction of his classmates was to inquire about context: Where were you when you invited her, was she in a hurry, were you alone or with others? Then they turned to language: What exactly did you and she say? How did she say yes, verbally and nonverbally? The next avenue was to consider the girl's behavior idiosyncratic: she forgot, she was saving face and avoiding mutual discomfort. The discussion then turned to their own cultural framework and the individuality of situations: How would they refuse an unwelcome invitation? It depends. Culture is not, after all, a fixed set of values and behaviors, but an imagination of possibles in which each situation will trigger different desired options in each individual. Ultimately Aaron had mustered the nerve to ask the girl what had taken place. Indeed, she had said 'yes' and meant 'yes', but in the assumed context of a group activity. She had expected him to just join the group, who would all maybe see that movie later. (How Mexican of her.)

Our *trash photo* could not extend itself backward or forward in time to access the pastness and futureness in that moment of its capture. Were we able to see beyond its edges to its temporal context, however, we might construct from it an entire cultural narrative. Shot at the end of a Saturday, the photo shows the uncollected debris of a *tianguis* or itinerant street market, a pre-Columbian custom that has morphed into its unique expression in the contemporary urban setting as part of Mexico's informal economy. As a space of unauthorized commercial activity, it juxtaposes an indigenous market imaginary with the globalized, technologized world of malls and superstores.

For initial exploration of values in the marketplace, students conducted ethnographies first in the municipal market--the permanent, government-monitored enterprise whose variety of goods represents an alternative to both the *tianguis* and commercial giants. The aim of the ethnography was for students to connect culturally: first to their sense of smell, taste and touch as well as sight in an attempt to produce the most particularistic and provocative description; then to their setting: What are the spaces? How do you know? How are they organized and occupied?; finally, to eavesdrop and chat with the people: Who are the vendors? How do they interact with each other and with their clients and with you? How long have they worked there? What personal stories can they tell you? What are their products, how are they purposed and prepared and combined, where do they come from, what is done with those that don't sell? As a space where culture, society, economy and environment merge, the market serves not only as an affective and sensory awakening, but as a meaning awakening as well.

Annie's metaphor: Maíz is Mexico

- -; Es maíz? pregunto a la vendedora
- -Es elote, me contesta
- -; Pero es maíz, no?
- -Es elote
- -¿Pero no es maíz realmente?
- -E-L-O-T-E

'At the time, I didn't understand the vendor's impatience. She seemed rude and it made me angry. Now I understand that she was simply clarifying that she sold elote [young, fresh corn] and not maiz [dried kernels]. For me, maiz was corn and corn was maíz and elote was just another name for it. This exchange was my entrance into the world of Mexican maize, a world where everything does not have translation.' Annie's metaphor, presented during the final week of the program, looks back with a new perspective on her first confusing encounter in the market. Initially frustrated by the vendor's refusal to see her "corn" perspective, Annie recites the differences between several of the words that have now become part of her maize vocabulary, concluding that one word is insufficient to express all the meanings of this foundation of Mexican life and spirit. Far from a mere American side dish, Annie notes, maiz is part of the mental diet of all Mexican peoples, its "beard and teeth" evoking its humanness. First she compares her supermarket corn with Mexico's elote: 'Corn is bright yellow, soft, with uniformly even kernels. *Elote* is harder, duller in color, more diverse and irregular. My corn is probably genetically modified. Elote is organic, not only in its production, but in its meaning as the Mayan structure of the universe and origin of the human species. My corn is anonymous, a disconnected commodity that feeds industry and fuels motors; maiz is the people impacted by the policies that protect that industry and so is also marginalization and migration and monopoly, and resistance and revolution. Corn is Monsanto, maiz is the milpa, the story of Mexico, the challenges of sustainable development.

Directing students' attention to the perception of space (physical and psychological) in the municipal market stimulates a wealth of observations and emotions. Students commonly express revulsion at the intrusion of the sight and smell of exposed animal parts and organs into that of the fragrant fruits and flowers and insist that the meat should be relocated elsewhere. In chatting with vendors they learn that no assignment of vendor space is made in the government-supervised municipal market; yet, habitual use of a space implies informal proprietorship and respect for the belongingness of spaces to others, often passed down through generations of family. What particularly jars students at first, however, is that within this space of commercial transaction, within each vendor's space, is the space dedicated to the syncretic cultural figure of the Virgin of Guadalupe.

Taylor's Metaphor: An Altered View of "Altar"

Taylor's metaphor of the domestic ofrenda captures a psychological space dilemma. She shares her first impression of the "altar" in her host family's home, of the type that can be found in any Mexican home: This must be a very religious woman and, since Taylor was not herself religious, she felt discomfort and fear of being judged. She found the display "inappropriate" for the living room and even a bit scary, and was puzzled that she never saw the señora go to church; in fact, she worked Sundays as a store clerk. Taylor confesses that she avoided even looking at this altar with its photos of the deceased husband surrounded by candles, the figure of a suffering crucified Christ, the ubiquitous Virgin of Guadalupe. It was not until the Virgin of Guadalupe was discussed in class as a cultural metaphor that she decided to venture a closer look. She explains that mixed in with the religious and cultural icons were objects whose meaning she could not discern: a shell, a miniature guitar, assorted figurines. As she examined it for the first time, her host mother approached and spoke to her. And it was hearing her host mother's story that joined this collection of artifacts to embed them in personal significance and emotional value: how the woman's husband had suffered a long and painful illness, how she had taken strength and comfort from family and friends both during his illness and still many years after his death. The shell, the guitar, the photos told stories of their times together. Taylor concludes with her reflection on the ofrenda as sacred space of memory and honor, a space of connection. And it was in this space that she connected to her host family as well. She posed this question: How would your ofrenda tell your cultural and personal story? What memories do you honor?

In the municipal marketplace, similar discomfort is often expressed regarding the space *feel*: 'In the grand market I felt like an intruder, an uninvited person at a club meeting who was interrupting a conversation.' 'It was hard to find ways to get the women to chat with me, even after I bought something.' In contrast to a view of the marketplace as impersonal, goods-centered, consumer focused and competition-driven, chats and overheard conversations with vendors revealed a tightly knit social space of friends and families, where successful transactions were only a part of the dynamic and where relationships between the women (for this is a distinctly gendered space) sometimes seemed illogical to students: 'How can one woman sell the same avocado at the same price side by side with another woman and not feel *competition*? How can they make money that way?' And 'how can one vendor, whose avocados are not yet ripe, take one from another vendor and sell it as her own, and then keep chatting with her as if nothing happened?' Either there were no rules here, or the rules were very different.

Subsequent visits to NGOs such as Semillas (dedicated to indigenous women's entrepreneurship and financial stability), to the *Tianguis Indígena EECO* (indigenous network dedicated to economic solidarity and social equality), to a women-run microfinancing cooperative and a fair-trade community, helped students fill in some these blanks, introducing the ideas of solidarity economies, use value over exchange value and alternative currencies, while hearing personal stories of the impact of globalization and NAFTA market structures on local issues of equity, food sovereignty, community lands, unemployment, migration and family articulation and stability. Indeed, it was one of these visits that inspired the following student metaphor.

#### Dasha's Metaphor: Paper Flowers

Lippman (1922) says that for the most part we do not first see and then define, we first define and then see, selecting what our cultural mind has already defined for us and perceiving it in a form stereotyped for us by our culture. One of the themes

that predictably produces a rush to judgment, especially among female students, is that of gendered spaces. Students, for example, quite commonly denounce as unfair and discriminatory the courtesy practice in Mexico City of reserving certain metro cars for "women and children only" during rush-hour transit. Dasha's story, while of the same bent, is unique in its insight and introspection. It is set in the context of a service-learning project in Michoacan. The leaders of a fair-trade farming cooperative had planned for the students to spend the day assisting in the harvest of guavas on one of the ranchos. On arrival the students gathered in the basketball court of the village. And there they waited, as the men of the village stood around leisurely chatting. After an hour, the students grew uncomfortable and impatient: When were they going to be allowed into the field? Suddenly, down the hill came the women of the rancho, who settled in the court to chat with the students. Dasha confesses she did not want to waste time conversing with these women because she was at the cooperative to have the new experience of harvesting the field. Another full hour passed until finally word began to spread (this indirectness of communication would form another layer of analysis) that the group would not be allowed to go into the field with the men because of the group's preponderance of females (23 of a group of 27). Instead, the women of the ranch warmly invited the girls to their homes. All of the girls accepted except Dasha and a classmate. Dasha tells of how the two sat stewing in the basketball court all day, angry that they did not get what was promised them, refusing to take seconds in the gendered space of the women. Hours later, the other girls returned excitedly displaying elaborate newspaper flowers, which they had been taught to make by the women. On reflection, Dasha explains how the paper flower that she never created symbolized the stubbornness of her own "feminism" template that had ironically spurned the women and the opportunity to partake of their world. She then adds another layer of reflection to this symbol: how women both create within their space and expand their space through this creativity. Here is paper, the ancient symbol of masculine, wrought by women into the symbol of their gender, the flower; the newspaper, symbol of global communication, connected to the local by women through tradition. It was the women, through their improvisational arts of the home, who turned trash into treasure, cultivating as in the field the values of the fair trade cooperative itself: resourcefulness, conservation, cultural continuity, sustainability. It was the women, not the men, who had dictated where Dasha belonged. In true *feminist* principle, the women had made their space.

Experiences in and discussions of the marketplaces and cooperatives were a small but important part of the emergence of a different perception of individual and group, of social relations and work, of time and its permanence and passing, of the connection between humans and the plant and animal world, and of quality space, appropriated space, improvised space. The real impact of these values differences, however, was to come from a close-up of the tianguis, the unlicensed and unregulated itinerant street markets whose makeshift stalls, elaborate tangles of improvised electrical connections, and hodgepodge of merchandise from global market knockoffs to repaired or repurposed appliances to elaborate hand-women textiles, are part of Mexico's massive informal economy, estimated by some to be as high as 60 percent.

In referring to the articulated relationships that space has with society, Lefevbre (1974) refers to two types: dominated space, in which practices and technologies impose new forms on pre-existing space, and *appropriated* space, in which natural space is modified according to the needs or habitual uses of a group. As implied by its name "Wal-Mex", Mexico's Wal-Mart captures the image of the top-down space dominator, whereas the *tianguis*, rooted in prehispanic traditions and hooked into today's indigenous identity, is the space appropriator (Mete, et al, 2012). In Mexico City, these two paradoxical aspects of the country's economy often coexist, as two different working cultures collide: "on the one hand the global(ized) US market and on the other hand the Mexican traditional model, with its own roots and rules, considerably shaped by a tough culture of poverty" (Mete et al., 2013, p. 9).

In the *tianguis*, student ethnographies focus on much the same elements as in the municipal market. Students observe that work is, once again, very much a social affair; vendor space is, once again, predominantly indigenous and female. Space 'ownership' is again a matter of habitual occupation but, positioned between legal and illegal, functions in the *tianguis* via the facilitation, protection, negotiation and mediation of networks of *tianguis* leaders and local authorities. Moreover, in contrast to the climate of the municipal market, where students had perceived a closed social system, the *tianguis* had an open, inviting feel of *fiesta*, family, inclusiveness and abundant conversation.

Indeed, more than a reaction to poverty, the *tianguis* is an economic system, social structure, and political ecosystem that fills the cracks to give "a sense and content and shape to public space," modifying "the anonymous, ephemeral, transient and partial space that constitutes the core of the dimension of the modern age" (Duhau & Giglia, cited in Mete, 2012, p. 5). It fulfills not only the employment need for those blocked from formal routes by bureaucracy, resources or ascribed status, but the need for social network, interpersonal ties and deep links to local cultural heritage and traditional practices. The *tianguis* is a testament to the ability of culture to shape urban environments (Mete, 2012) and it is a lesson in sustainable development.

Mexico City's own controversy over its *ambulantes* or street vendors in the tensions between intrinsic and instrumental values hearkens the student photo that opened this discussion, as *trash talking* is indeed part of the city's discourse. Recently, in the effort to attract tourists (who viewed the tianguis as dirty and dangerous), the city undertook a very controversial "clean-up" and gentrification of its main plaza that swept out *tianguis* (the "blight" metaphor), relocating vendors to authorized sites at the city's periphery. Students were asked to examine in detail the roots of the conflict and the impacts of the city's action as a sustainability dilemma, attending to the interdependence of cultural, social, economic and environmental dimensions. As systems thinking counsels analysis through all contributing factors and assessment of potential short-term and long-term impacts of solutions on its diversity of stakeholders, this was a task that could not be confined to the made-in-USA minds of our classroom: Students invited their Mexican university peers to participate in a roundtable discussion of the intricately entwined issues that embed the *tianguis* in cultural psyches and the myriad human impacts of their uprooting.

Several final case-study projects have derived from some of the themes directly or indirectly addressed in this thematic "market" thread, such as the women's movement, indigenous entrepreneurship, and government plans for tourism expansion. Luke's case study, in particular, stands out for its provocative question related very

directly to the tianguis discussion: Is the new informal economy a virtual one? His project explored through the lenses of sustainable development the growth and implications of online crowdsourcing in Mexico. In chats with several young entrepreneurs, motives for social-media solicitation of gifted start-up funds fleshed out not only the problems of inadequate resources and unresponsive institutional financing structures for formal entrepreneurship, but a tianguis-like longing for 'a constant cultural connection, and 'a type of personal and social friendship and trust.' These are youth,' says Luke, 'who understand their country and the frustrations of its peoples, who have a strong nationalism, and who are willing to improvise, to adapt, 'to do things they don't know how to do.' They are integrating the virtual world into the concrete community, linking online solicitations to donation-delivery parties and social events and, in this process, forming real-life bonds and social networks as they work to construct their futures.

Sylvie's Metaphor: Hecho en MéXico with an X

'My Spanish friend spells Mexico with a j (Méjico),' Sylvie reports telling her host mother the first day. 'Oh no, you can't do that,' the mother replies. 'The X is our history.' Sylvie's metaphor begins with her research on scholars' belief that the original [3] sound of the x in "Mexicas" (Aztecs) evolved into a j sound due to Spanish orthography, and she takes this as significant: The X, she says, is the convergence of two very different belief systems. For the indigenous peoples the X is the structure of the universe, a reflection of the heavens on earth and the sacred duality of dualities that is equilibrium. For the European peoples, it is the cross of Christianity. But, Sylvie says, the *X* is a symbol that also eliminates, crosses out, as some peoples are marginalized, excluded in decision making. And an X in mathematics is an unknown. In the middle of this country's name, Sylvie continues, is an X that is una encrucijada (crossroads). Mexico is at a crossroads and what is unknown is whether one set of values will eradicate another or if its diverse peoples will converge through a dialogue of sustainability. The X in my culture is also a kiss, Sylvie says, which I send to the Mexican people who have made this country my second home.

#### Conclusion

We think we know a culture until we meet the people. We think we understand sustainability the abstraction until we are face to face with its decision making. Diversity, the fundamental principle of sustainability, makes things complex. The small and slow mantra of educating for sustainable development might guide not only our students' understanding of themselves and others in intercultural communication, but our own focus and expectations for student gains. There are immense challenges in accepting such a mission, not only in the new ways it requires us to stretch our learners, but in the ways it requires each of us as teachers to stretch ourselves, to reach beyond our own educational backgrounds and to become collaborators with learners. Indeed, imagining and experimenting with new ways to address the challenges of sustainable development through intercultural growth is part of the excitement and energy of language teaching in our era as we guide our future global citizens to think in links, think in context, think in time, think in people, think in consequences and think in responsibility. We are not, as Walker (2012) interprets the oyster metaphor, trapped inside a shell, unable to break out, forced to live with its finite and declining resources, powerless to make the best use of the treasures that lie within. If the world is our oyster, may it be instead the one that creates the intercultured pearl.

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